

WHAT IS CLAIMED IS:

1. A snowmobile comprising a frame assembly, a drive assembly coupled to the frame assembly and including a drive belt adapted to contact a ground surface to propel the snowmobile over the ground surface, an engine supported by the frame assembly, the engine including an engine body comprising a crankcase, a crankshaft rotatably journaled within the crankcase for rotation about a crankshaft axis, a cylinder block assembly extending in an upward direction from the crankcase, the cylinder block assembly defining at least one cylinder bore adapted to support a piston for reciprocal motion along a bore axis, and a balancer shaft rotatably coupled to the crankshaft and supported by the engine body for rotation about a balancer shaft axis, the cylinder assembly canted such that the bore axis is inclined rearwardly from a vertical axis, and the wherein balancer shaft axis is disposed above the crankshaft axis.
2. The snowmobile of Claim 1, wherein the balancer shaft axis is forward of the crankshaft axis.
3. The snowmobile of Claim 1, wherein the balancer shaft is rotatably supported by the cylinder assembly.
4. The snowmobile of Claim 1, additionally comprising an air box defining a plenum chamber therein, the air box disposed on a forward side of the cylinder assembly.
5. The snowmobile of Claim 4, wherein at least a portion of the air box is above the cylinder assembly.
6. The snowmobile of Claim 1, additionally comprising a water pump adapted to deliver cooling liquid to the engine body, the water pump disposed above the crankshaft.
7. The snowmobile of Claim 1, additionally comprising a battery disposed between the cylinder assembly and the air box.
8. The snowmobile of Claim 7, wherein at least a portion of the battery is below the air box.
9. The snowmobile of Claim 1, additionally comprising a lid member coupled to a lower end of the crankcase, the lid member and the crankcase cooperating to define a lubricant chamber therebetween, at least one lubricant pump disposed within the lubricant chamber and supported by the crankcase.

10. The snowmobile of Claim 9, wherein the at least one lubricant pump comprises a first lubricant pump and a second lubricant pump, additionally comprising an internal wall within the lubricant chamber, an inlet of the first lubricant pump positioned a first side of the wall and an inlet of the second lubricant pump positioned on a second side of the wall.

11. The snowmobile of Claim 1, additionally comprising a transmission assembly adapted to transmit torque produced by the engine to the drive assembly, the transmission including an input shaft supported by at least two bearing assemblies spaced along an axis of the input shaft, the at least two bearing assemblies supported by the engine body.

12. The snowmobile of Claim 11, additionally comprising a damper operably positioned between the crankshaft and the input shaft.

13. A snowmobile comprising a frame assembly, a drive assembly coupled to the frame assembly and including a drive belt adapted to contact a ground surface to propel the snowmobile over the ground surface, an engine supported by the frame assembly, the engine including an engine body comprising a crankcase, a crankshaft rotatably journaled within the crankcase for rotation about a crankshaft axis, a cylinder block assembly extending in an upward direction from the crankcase, the cylinder block assembly defining at least one cylinder bore adapted to support a piston for reciprocal motion along a bore axis, and a balancer shaft rotatably coupled to the crankshaft and supported by the engine body for rotation about a balancer shaft axis, wherein the cylinder assembly canted such that the bore axis is inclined rearwardly from a vertical axis and at least a portion of the balancer shaft is disposed directly above the crankshaft.

14. The snowmobile of Claim 13, wherein the balancer shaft axis is forward of the crankshaft axis.

15. The snowmobile of Claim 13, wherein the balancer shaft is rotatably supported by the cylinder assembly.

16. The snowmobile of Claim 13, additionally comprising an air box defining a plenum chamber therein, the air box disposed on a forward side of the cylinder assembly.

17. The snowmobile of Claim 16, wherein at least a portion of the air box is above the cylinder assembly.

18. The snowmobile of Claim 13, additionally comprising a water pump adapted to deliver cooling liquid to the engine body, the water pump disposed above the crankshaft.
19. The snowmobile of Claim 13, additionally comprising a battery disposed between the cylinder assembly and the air box.
20. The snowmobile of Claim 19, wherein at least a portion of the battery is below the air box.
21. The snowmobile of Claim 13, additionally comprising a lid member coupled to a lower end of the crankcase, the lid member and the crankcase cooperating to define a lubricant chamber therebetween, at least one lubricant pump disposed within the lubricant chamber and supported by the crankcase.
22. The snowmobile of Claim 21, wherein the at least one lubricant pump comprises a first lubricant pump and a second lubricant pump, additionally comprising an internal wall within the lubricant chamber, an inlet of the first lubricant pump positioned a first side of the wall and an inlet of the second lubricant pump positioned on a second side of the wall.
23. The snowmobile of Claim 13, additionally comprising a transmission assembly adapted to transmit torque produced by the engine to the drive assembly, the transmission including an input shaft supported by at least two bearing assemblies spaced along an axis of the input shaft, the at least two bearing assemblies supported by the engine body.
24. The snowmobile of Claim 23, additionally comprising a damper operably positioned between the crankshaft and the input shaft.